Date: 11/15/2006

Time: 10:06:40

Inventor Name Search Result

Your Search was:

Last Name = TAUZIN First Name = JEROME

Application#	Patent#	Status	Date Filed	Title	Inventor Name
10519164	Not Issued	71		Use of at least one \$g(a)62 casein peptide with angiotensin i converting enzyme inhibiting activity for preparing medicines, food products and food complements	TAUZIN, JEROME

Inventor Search Completed: No Records to Display.

Caranala Amadham Immandan	Last Name	First Name	
Search Another: Inventor	Tauzin	jerome	Search

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Date: 11/15/2006

Time: 10:07:38

___ PALM INTRANET

Inventor Name Search Result

Your Search was:

Last Name = MICLO

First Name = LAURENT

Application#	Patent#	Status	Date Filed	Title	Inventor Name
08562979	5846939	150		THE USE OF A DECAPEPTIDE WITH BENZODIAZEPINE-TYPE ACTIVITY FOR PREPARING MEDICINES AND FOOD SUPPLEMENTS	MICLO, LAURENT
10519164	Not Issued	71	,	Use of at least one \$g(a)62 casein peptide with angiotensin i converting enzyme inhibiting activity for preparing medicines, food products and food complements	MICLO, LAURENT

Inventor Search Completed: No Records to Display.

Search Another: Inventor	Last Name	First Name	
Search Another. Inventor	miclo	laurent	Search

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Date: 11/15/2006

Time: 10:08:20

PALM INTRANET

Inventor Name Search Result

Your Search was:

Last Name = LEFRANC First Name = CATHERINE

Application#	Patent#	Status	Date Filed	Title	Inventor Name
10519164	Not Issued	71		Use of at least one \$g(a)62 casein peptide with angiotensin i converting enzyme inhibiting activity for preparing medicines, food products and food complements	LEFRANC, CATHERINE
08588984	Not Issued	168		HYPOALLERGENIC SEROCOLOSTRAL FRACTION WITH HIGH ANTIBODY ACTIVITY, ITS USE, AND A PROCESS FOR THE PRODUCTION OF SUCH A FRACTION	LEFRANC-MILLOT, CATHERINE

Inventor Search Completed: No Records to Display.

Coordh Arathan Inventor	Last Name	First Name	
Search Another: Inventor	lefranc	catherine	Search.

To go back use Back button on your browser toolbar.

Date: 11/15/2006

Time: 10:08:48

PALM INTRANET

Inventor Name Search Result

Your Search was:

Last Name = BOUDIER

First Name = JEAN

Application#	Patent#	Status	Date Filed	Title	Inventor Name
08562979	5846939	150	11/27/1995		BOUDIER, JEAN- FRANCOIS
10519164	Not Issued	71		Use of at least one \$g(a)62 casein peptide with angiotensin i converting enzyme inhibiting activity for preparing medicines, food products and food complements	BOUDIER, JEAN- FRANCOIS

Inventor Search Completed: No Records to Display.

Search Another: Inventor	Last Name	First Name	
Search Another. Inventor	boudier	jean	Search

To go back use Back button on your browser toolbar.

Date: 11/15/2006

Time: 10:09:26



Inventor Name Search Result

Your Search was:

Last Name = GAILLARD

First Name = JEAN

Application#	Patent#	Status	Date Filed	Title	Inventor Name
06058578	4320362	150		FILTER FOR ANALOG SIGNALS	GAILLARD, JEAN
06071503	4270929	150	08/31/1979	PROCESS FOR PRODUCING GASOLINE OF HIGH OCTANE NUMBER,IN PARTICULAR LEAD-FREE GASOLINE	GAILLARD, JEAN
<u>06075486</u>	4268701	150	09/14/1979	PROCESS FOR PRODUCING HIGH OCTANE GASOLINE AND PARTICULARLY LEAD- FREE GASOLINE	GAILLARD, JEAN
06102488	4283305	150	12/11/1979	NEW CATALYST COMPOSITION AND ITS USE FOR OLIGOMERIZING OLEFINS	GAILLARD, JEAN
06214603	4383228	150	12/09/1980	FILTER DEVICE COMPRISING SWITCHED- CAPACITANCE INTEGRATING NETWORKS	GAILLARD, JEAN
06227309	4387262	150	01/22/1981	PROCESS FOR OLIGOMERIZING OLEFINS	GAILLARD, JEAN
06261818	4390431	250	05/08/1981	PROCESS FOR TREATING AQUEOUS STREAMS CONTAINING ALUMINUM	GAILLARD, JEAN
06261819	4362650	150	05/08/1981	CATALYST AND PROCESS FOR OLEFIN OLIGOMERIZATION	GAILLARD, JEAN
06370237	4401559	150	04/21/1982	PROCESS FOR REMOVING HALOGENATED IMPURITIES FROM OLEFIN OLIGOMERS	GAILLARD, JEAN
06370322	4404415	150	04/21/1982	PROCESS FOR PRODUCING NONENES OR FOR SIMULTANEOUSLY	GAILLARD, JEAN

				PRODUCING NONENES AND DODECENES FROM PROPENE	
06371341	4474647	150		PROCESS FOR PURIFYING A C4 AND/OR C5 HYDROCARBON CUT CONTAINING WATER AND DIMETHYL ETHER AS IMPURITIES	GAILLARD, JEAN
06373182	4417091	150	04/29/1982	PROCESS FOR REMOVING FLUORINE FROM OLEFIN OLIGOMERS	GAILLARD, JEAN
07248516	Not Issued	161	09/23/1988	POLYIMIDE COMPOSITIONS ETCHABLE IN A BASIC MEDIUM	GAILLARD, JEAN
07701071	5165359	150	05/16/1991	PRESSURE TIGHT HULL CONVERTIBLE SUBMARINE	GAILLARD, JEAN
08252993	5472457	150	06/02/1994	GASOLINE ADDITIVES CONTAINING ALKOXYLATED IMIDAZO- OXAZOLES	GAILLARD, JEAN
08454372	Not Issued	163	06/16/1995	PETROLEUM MIDDLE DISTILLATE COMPOSITION CONTAINING A SUBSTANCE FOR LIMITING THE PARAFFIN SEDIMENTATION RATE	GAILLARD, JEAN
08639610	5728912	150		BUTENE-1 PRODUCTION BY DIMERIZATION OF ETHYLENE COMPRISING AN IMPROVED SPENT CATALYST REMOVAL SECTION	GAILLARD, JEAN
09963040	6860908	150	09/26/2001	PETROLEUM MIDDLE DISTILLATE COMPOSITION CONTAINING A SUBSTANCE FOR LIMITING THE PARAFFIN SEDIMENTATION RATE	GAILLARD, JEAN
08149405	Not Issued	168		METHOD FOR RECOVERY OF ALKALI METAL OR ALKALINE-EARTH METAL TEREPHTHALATE AND OF ALKYLENE GLYCOL FROM POLYETHYLENE TEREPHTHALATES	BERNARD
08367859	5545746	150	01/03/1995	METHOD FOR RECOVERY OF	GAILLARD, JEAN-

				ALKALI METAL OR ALKALINE-EARTH METAL TEREPHTHALATE AND OF ALKYLENE GLYCOL FROM POLYETHYLENE TEREPHTHALATES	BERNARD
07985937	5292139	150	11	CLAMPING CHUCK FOR A MACHINE TOOL, ESPECIALLY AN AUTOMATIC MACHINE TOOL, AND A METHOD FOR PREPARING IT	GAILLARD, JEAN- CHRISTOPHE
<u>06865786</u>	Not Issued	161		GAS SPRING WITH PERMANENT LUBRICATION	GAILLARD, JEAN- CLAUDE
07171339	4847430	150	()	PROCESS FOR MANUFACTURING A TERTIARY ALKYL ETHER BY REACTIVE DISTILLATION	GAILLARD, JEAN- FERDINAND
07171340	4847431	150	03/21/1988	PROCESS FOR MANUFACTURING A TERTIARY ALKYL ETHER BY REACTIVE DISTILLATION	GAILLARD, JEAN- FERDINAND
07356087	5026459	150	05/24/1989	AN APPARATUS FOR REACTIVE DISTILLATION	GAILLARD, JEAN- FERDINAND
07356090	5013407	150	05/24/1989	AN APPARATUS FOR REACTIVE DISTILLATION	GAILLARD, JEAN- FERDINAND
10519164	Not Issued	71		Use of at least one \$g(a)62 casein peptide with angiotensin i converting enzyme inhibiting activity for preparing medicines, food products and food complements	GAILLARD, JEAN- LUC
07975930	5294788	150	04/16/1993	LOW LIGHT LEVEL, HIGH RESOLUTION IMAGER USING PHOSPHORSCREEN PROVIDED WITH A METAL LAYER FOR CONTROLLING INTEGRATION CYCLE OF PHOTOSENSITIVE MATRIX ARRAY	GAILLARD, JEAN- MARC
06520480	Not Issued	166	08/04/1983	PROCESS FOR PRODUCING GRANULATES FROM STEEL PLANT SLAG	GAILLARD, JEAN- MARIE
06788519	Not Issued	161		PROCESS FOR PRODUCING GRANULATES FROM STEEL	GAILLARD, JEAN- MARIE

				PLANT SLAG	
09555875	Not Issued	161	08/23/2000	Method and device for marking objects with sintered mineral powders	GAILLARD, JEAN- MARIE
09622639	6767499	150	1	FAST PROTOTYPING METHOD BY LASER SINTERING OF POWDER	GAILLARD, JEAN- MARIE
09890764	6551473	150	10/24/2001	ELECTROLYTIC CELL ARRANGEMENT FOR PRODUCTION OF ALUMINIUM	GAILLARD, JEAN- MARIE
10149126	7048530	150	10/18/2002	DEVICE FOR APPLYING THIN LAYERS OF A POWDER OR PULVERULENT MATERIAL AND CORRESPONDING METHOD	GAILLARD, JEAN- MARIE
10657679	Not Issued	41	09/08/2003	Method for manufacturing building elements	GAILLARD, JEAN- MARIE
10663594	6872879	150	09/16/2003	THERMOELECTRIC GENERATOR	GAILLARD, JEAN- MARIE
09185615	6848951	150	11/04/1998	INTERFACE DEVICE BETWEEN PIECES OF EQUIPMENT OF A PLANT	GAILLARD, JEAN- PAUL
08815741	6081585	150	03/12/1997	INTERACTIVE CONTROL ELECTRONIC DIRECTORY	GAILLARD, JEAN- PIERRE

Inventor Search Completed: No Records to Display.

Carriel Association Income	Last Name	First Name	
Search Another: Inventor		jean	√Search⊬

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        SEP 11 CA/CAplus enhanced with more pre-1907 records
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        SEP 21
                CA/CAplus fields enhanced with simultaneous left and right
                 truncation
NEWS 8
        SEP 25
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                 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
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                 with preparation role
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              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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=> D L2 1-4 ibib abs

L2 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:493749 CAPLUS

DOCUMENT NUMBER: 143:40600

TITLE: Peptide derivatization for enhancing protein

identification by mass spectrometry
INVENTOR(S): Reilly, James P.; Beardsley, Richard L.
PATENT ASSIGNEE(S): Indiana University Research and Technology

Corporation, USA

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	rent :	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D.	ATE	
WO	2005	 0525	 63		 A1	-	2005	0609	1	WO 2	 004-	 US38	 932		2	 0041:	 119
	W:	AE, CN, GE, LK, NO, TJ, BW, AZ, EE,	AG, CO, GH, LR, NZ, TM, GH, BY, ES,	AL, CR, GM, LS, OM, TN, GM, KG,	AM, CU, HR, LT, PG, TR, KE, KZ, FR,	AT, CZ, HU, LU, PH, TT, LS, MD, GB,	AU, DE, ID, LV, PL, TZ, MW, RU, GR, BJ,	AZ, DK, IL, MA, PT, UA, MZ, TJ,	BA, DM, IN, MD, RO, UG, NA, TM, IE,	BB, DZ, IS, MG, RU, US, SD, AT, IS,	BG, EC, JP, MK, SC, UZ, SL, BE, IT,	BR, EE, KE, MN, SD, VC, SZ, BG, LU,	BW, EG, KG, MW, SE, VN, TZ, CH, MC,	BY, ES, KP, MX, SG, YU, UG, CY, NL,	BZ, FI, KR, MZ, SK, ZA, CZ, PL,	CA, GB, KZ, NA, SL, ZM, ZW, DE, PT,	CH, GD, LC, NI, SY, ZW AM, DK, RO,
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PRIORITY APPLN. INFO.:

US 2003-523643P P 20031120

AB One aspect of the present invention is directed to a dual labeling strategy that enhances the mass spectrometry anal. of peptides. In one embodiment a de novo sequencing method is provided that utilizes both guanidination of lysine residues in conjunction with amidination of the N-termini of peptides to be analyzed by mass spectrometry. This approach facilitates identification of N- and C-terminal fragment ions.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:546918 CAPLUS

DOCUMENT NUMBER: 141:83633

TITLE: Rice nucleic acid molecules and encoded proteins and

their uses for plant improvement

INVENTOR(S): La Rosa, Thomas J.; Kovalic, David K.; Zhou, Yihua;

Cao, Yongwei; Wu, Wei; Boukharov, Andrey A.; Barbazuk,

Brad W.

PATENT ASSIGNEE(S): · USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S.

Ser. No. 837,604.

CODEN: USXXCO

DOCUMENT TYPE: LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT: 27

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2004123343	A1	20040624	US 2003-437963		20030514
US 2004123343	A1	20040624	US 2003-437963		20030514
PRIORITY APPLN. INFO.:			US 2000-197872P	P	20000419
			US 2001-837604	A2	20010418
			US 2003-437963	Α	20030514

AB The present invention provides 102,483 cDNA sequences and their encoded protein sequences from rice (Oryza sativa). Bioinformatic anal. identified putative functions and uses for the nucleic acids/polypeptides. The disclosed polynucleotides and polypeptides find use in production of transgenic plants to produce plants having improved properties. [This abstract record is one of forty-one records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

2004:5123 CAPLUS

DOCOMBIN

140:71022

TITLE:

Casein $\alpha S2$ peptides with angiotensin

I-converting enzyme (ACE)-inhibiting activity for the preparation of medicaments and foodstuffs for the

treatment of hypertension

INVENTOR(S):

Tauzin, Jerome; Miclo, Laurent; Lefranc, Catherine;

Boudier, Jean-Francois; Gaillard, Jean-Luc

PATENT ASSIGNEE(S):

Ingredia, Fr.

SOURCE:

Eur. Pat. Appl., 19 pp:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

P	ATENT	NO.			KIN	D -	DATE			APPI	LICĄT:	ION I	NO.		D2	ATE	
E	P 137	4885			A1		2004	0102		EP 2	2003-3	3700:	25		21	0030	624
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		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	HU,	SK	
FI	R 284				A1						2002-						627
FI	R 284	1473					2004						•				
	A 249				AA		2004	0108		CA 2	2003-	2490:	282		2	0030	624
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J	P 200	55308	51		Т2		2005	1013		JP 2	2004-	5168	59		2	0030	624
		62349															
PRIORI											2002-						
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AB The invention discloses peptides derived from casein $\alpha S2$ with ACE-inhibiting activity for the prevention and treatment of hypertension. The peptides may be included in pharmaceutical compns. and foodstuffs. REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:452327 CAPLUS

DOCUMENT NUMBER: 125:123676

TITLE: Purification of antibacterial peptides from bovine

milk

INVENTOR(S): Zucht, Hans-Dieter; Forssmann, Wolf-Georg; Raida,

Manfred; Adermann, Knut

PATENT ASSIGNEE(S): Germany

SOURCE: Ger. Offen., 17 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	rent :	NO.		:	KIN	0	DATE			APPL	ICAT	ION	NO.		D	ATE	
	4444				A1		1996 1998			DE 1	994-	4444	753		1	9941	215
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WO	9735	877			A1		1997	1002		WO 1	996-	EP12	96		1	9960	325
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		KR,	LK,	LR,	LT,	LV,	MD,	MG,	MK,	MN,	MX,	NO,	NZ,	PL,	RO,	SG,	SI,
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ES	2159	021			T3		2001				996-					9960	
US	2002	0259					2002			US 1	.998-	1552	03		1	9980	924
US	6579	849			В2		2003	0617									
PRIORIT	Y APP	LN.	INFO	. :			•			DE 1	994-	4444	753		1	9941	215
										WO 1	996-	EP12	96	Ī	W 1	9960	325

AB Fragments of $\alpha s2$ -casein, designated as casobiotics, are present in large amts. in bovine milk and show antibacterial activity against Escherichia coli. Thus, milk was acidified, heated, treated with CaCl2, and centrifuged, and the whey was subjected to cation-exchange chromatog. and 3 cycles of HPLC to isolate $\alpha s2$ -casein(165-203). The structure and biol. activity of this peptide were confirmed by synthesis. A related peptide, $\alpha s2$ -casein(166-203), was also prepared and showed similar biol. activity.

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ANSWER 1 OF 2 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:388536 BIOSIS DOCUMENT NUMBER: PREV200510174584

Antistaphylococcal activity of Omani honey in combination TITLE:

with bovine milk.

Al-Jabri, A. A. [Reprint Author]; Al Hosni, S. A.; Nzeako, AUTHOR(S):

B.; Nsanze, H.

Sultan Qaboos Univ, Coll Med and Hlth Sci, Dept Microbiol CORPORATE SOURCE:

and Immunol, POB 35, Muscat 123, Oman

aaljabri@squ.edu.mn

British Journal of Biomedical Science, (2005) Vol. 62, No. SOURCE:

2, pp. 92-93.

ISSN: 0967-4845.

DOCUMENT TYPE: Article English LANGUAGE:

ENTRY DATE: Entered STN: 28 Sep 2005

Last Updated on STN: 28 Sep 2005

ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

2003:279824 BIOSIS ACCESSION NUMBER: DOCUMENT NUMBER: PREV200300279824

Biodefense properties of milk: The role of antimicrobial TITLE:

proteins and peptides.

AUTHOR(S): Clare, D. A. [Reprint Author]; Catignani, G. L.; Swaisgood,

H. E.

CORPORATE SOURCE: Dept. of Food Science, North Carolina State University,

218-E Schaub Hall, Raleigh, NC, 27695-7624, USA

debra clare@ncsu.edu

Current Pharmaceutical Design, (2003) Vol. 9, No. 16, pp. SOURCE:

1239-1255. print.

ISSN: 1381-6128 (ISSN print)...

DOCUMENT TYPE: Article

General Review; (Literature Review)

LANGUAGE: English

ENTRY DATE: Entered STN: 11 Jun 2003

Last Updated on STN: 1 Aug 2003

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 11.69 57.32

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SINCE FILE TOTAL
ENTRY SESSION

CA SUBSCRIBER PRICE

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FILE COVERS 1907 - 15 Nov 2006 VOL 145 ISS 21 FILE LAST UPDATED: 13 Nov 2006 (20061113/ED)

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L6 2 L5 AND PATENT/DT

=> d L6 1-2 ibib abs

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:5123 CAPLUS

DOCUMENT NUMBER:

140:71022

TITLE:

Casein α S2 peptides with angiotensin

I-converting enzyme (ACE)-inhibiting activity for the

preparation of medicaments and foodstuffs for the

treatment of hypertension

INVENTOR(S):

Tauzin, Jerome; Miclo, Laurent; Lefranc, Catherine;

Boudier, Jean-Francois; Gaillard, Jean-Luc

PATENT ASSIGNEE(S):

SOURCE:

Ingredia, Fr.

Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
R: AT, BE, CH IE, SI, LT FR 2841473	, DE, DK, ES, FR, , LV, FI, RO, MK, A1 20040102	EP 2003-370025 GB, GR, IT, LI, LU, NL, CY, AL, TR, BG, CZ, EE, FR 2002-8036	SE, MC, PT, HU, SK
	AA 20040108 A2 20040108	CA 2003-2490282 WO 2003-FR1945	
W: AE, AG, AL CO, CR, CU GM, HR, HU LS, LT, LU PH, PL, PT	, AM, AT, AU, AZ, , CZ, DE, DK, DM, , ID, IL, IN, IS, , LV, MA, MD, MG,	BA, BB, BG, BR, BY, BZ, DZ, EC, EE, ES, FI, GB, JP, KE, KG, KP, KR, KZ, MK, MN, MW, MX, MZ, NI, SE, SG, SK, SL, TJ, TM,	GD, GE, GH, LC, LK, LR, NO, NZ, OM,
RW: GH, GM, KE KG, KZ, MD FI, FR, GB BF, BJ, CF	, LS, MW, MZ, SD, , RU, TJ, TM, AT, , GR, HU, IE, IT, , CG, CI, CM, GA,	SL, SZ, TZ, UG, ZM, ZW, BE, BG, CH, CY, CZ, DE, LU, MC, NL, PT, RO, SE, GN, GQ, GW, ML, MR, NE, AU 2003-255691	DK, EE, ES, SI, SK, TR, SN, TD, TG
		BR 2003-12214	

JP 2005530851 Т2 20051013 JP 2004-516859 20030624 US 2006234942 A1 20061019 US 2005-519164 20050830 PRIORITY APPLN. INFO.: FR 2002-8036 A 20020627 WO 2003-FR1945 W 20030624

The invention discloses peptides derived from casein $\alpha S2$ with ACE-inhibiting activity for the prevention and treatment of hypertension. The peptides may be included in pharmaceutical compns. and foodstuffs. REFERENCE COUNT: • 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:31272 CAPLUS

DOCUMENT NUMBER: 136:107509

TITLE: α -Casein peptide composition for retarding aging

of the skin and treating periodontal disease

INVENTOR(S): Smith, John Arthur PATENT ASSIGNEE(S): Pepsyn Ltd., UK

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA'	CENT :	NO.			KIN)	DATE		7	APPL:	ICAT:	I NOI	10.		DZ	ATE	
	2002						2002(2002)		1	WO 2	001-0	GB260	01		2	010	613
		CO, HR, LT, RU, VN, GH,	CR, HU, LU, SD, YU, GM,	CU, ID, LV, SE, ZA, KE,	CZ, IL, MA, SG, ZW, LS,	DE, IN, MD, SI, AM, MW,	AU, DK, IS, MG, SK, AZ, MZ, GB,	DM, JP, MK, SL, BY, SD,	DZ, KE, MN, TJ, KG, SL,	EE, KG, MW, TM, KZ, SZ,	ES, KP, MX, TR, MD, TZ,	FI, KR, MZ, TT, RU, UG,	GB, KZ, NO, TZ, TJ, ZW,	GD, LC, NZ, UA, TM AT,	GE, LK, PL, UG,	GH, LR, PT, US,	GM, LS, RO, UZ,
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	2004		-												_	0010	613
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Provided is use of a peptide, or a derivative of a peptide, in the manufacture AB of a

medicament effective in alleviating or preventing periodontal disease, wherein the peptide comprises an amino acid sequence present in an α -S2 casein precursor, said sequence comprising 3 or more amino acids, and not comprising at its N-terminus the N-terminal amino acid of the full α -S2 casein precursor. The peptide may alternatively be any peptide having an $\alpha\text{-S2}$ casein fragment activity. Further . provided is use of a peptide, or a derivative of a peptide, in the manufacture

of a

medicament effective in alleviating or preventing an effect of aging in skin, wherein the peptide comprises an amino acid sequence present in an α -S2 casein precursor, said sequence comprising 3 or more amino acids, and not comprising at its N-terminus the N-terminal amino acid of the full α -S2 casein precursor. The peptide may alternatively be any peptide having an α -S2 casein fragment activity.

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FILE COVERS 1907 - 15 Nov 2006 VOL 145 ISS 21 FILE LAST UPDATED: 13 Nov 2006 (20061113/ED)

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=> s L5

L9

11 L5

=> d L9 1-11 ibib abs

L9 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:5123 CAPLUS

DOCUMENT NUMBER:

140:71022

TITLE:

Casein α S2 peptides with angiotensin

I-converting enzyme (ACE)-inhibiting activity for the

preparation of medicaments and foodstuffs for the

treatment of hypertension

INVENTOR(S):

Tauzin, Jerome; Miclo, Laurent; Lefranc, Catherine;

Boudier, Jean-Francois; Gaillard, Jean-Luc

PATENT ASSIGNEE(S):

SOURCE:

Ingredia, Fr.

Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	CENT				KIN					APPL:						ATE	
	1374			,	A1												
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
FR	2841	473			A1		2004	0102		FR 20	002-	8036			20	0020	627
FR	2841	473			В1		2004	0917									
CA	2490	282			AA		2004	0108	(CA 2	003-	2490	282		20	0030	624
WO	2004	0025	09		A2		2004	0108	ī	WO 21	003-	FR19	45		20	0030	624
WO	2004	0025	09		A3		2004	0415									
	W:	AE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	ĒE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	ΗU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw					
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	ΗU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG

AU 2003255691 AU 2003-255691 A1 20040119 20030624 BR 2003012214 Α 20050412 BR 2003-12214 20030624 Т2 JP 2005530851 20051013 JP 2004-516859 20030624 Α1 US 2006234942 20061019 US 2005-519164 20050830 PRIORITY APPLN. INFO.: FR 2002-8036 A 20020627 WO 2003-FR1945 W 20030624

The invention discloses peptides derived from casein $\alpha S2$ with ACE-inhibiting activity for the prevention and treatment of hypertension. The peptides may be included in pharmaceutical compns. and foodstuffs. REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS 5 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

2002:839514 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 138:362404

Angiotensin-I-converting enzyme inhibitory peptides TITLE:

from tryptic hydrolysate of bovine α S2-casein

AUTHOR(S): Tauzin, Jerome; Miclo, Laurent; Gaillard, Jean-Luc Laboratoire des BioSciences de l'Aliment, Faculte des CORPORATE SOURCE:

Sciences et Techniques, UC 885 INRA, Universite Henri Poincare Nancy 1, Vandoeuvre-le`s-Nancy, 54506, Fr.

SOURCE: FEBS Letters (2002), 531(2), 369-374

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal English LANGUAGE:

Angiotensin-I-converting enzyme (ACE) inhibitory activity of a tryptic digest of bovine $\alpha S2$ -casein ($\alpha S2$ -CN) was extensively

investigated. Forty-three peptide peaks were isolated and tested. Seven casokinins (i.e. CN-derived ACE inhibitory peptides) were identified and their IC50 values were determined Four peptides exhibited an IC50 value lower

than 20 μ M. Peptides α S2-CN (f174-181) and α S2-CN (f174-179) had IC50 values of 4 μ M. Surprisingly, deletion of the C-terminal dipeptide of two of these casokinins did not significantly

alter their inhibitory activity.

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 50 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:52829 CAPLUS

DOCUMENT NUMBER: 137:196485

TITLE: Molecular genetic characterization of the goat

αS2-casein E allele

AUTHOR(S): Lagonigro, R.; Pietrola, E.; D'Andrea, M.; Veltri, C.;

Pilla, F.

CORPORATE SOURCE: Dipartimento di Scienze Animali Vegetali e dell'

Ambiente, Universita del Molise, Campobasso, Italy

SOURCE: Animal Genetics (2001), 32(6), 391-393

CODEN: ANGEE3; ISSN: 0268-9146

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

As2 casein is one of the major protein of ruminants milk, and in goats, four alleles have already been described at the DNA level. DNA was extracted from whole blood of a goat specimen showing a homozygous E pattern to detect the mutation determining the phenotypic variant. All 18 exons of the as2 gene were amplified and sequenced, using primers selected according to the bovine intronic sequence. A mutation was identified at the eighty-third base of the exon 16, where cytosine was replaced by a quanine. In the encoded E protein variant, a proline replaced by an arginine in position 197 of the mature protein. The sequence of the amplified cDNA confirmed that the E allele presented a nucleotide substitution in the eighty-third base of the exon 16.

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 4

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

2002:37476 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:244141

Three oligopeptide-binding proteins are involved in TITLE:

the oligopeptide transport of Streptococcus

thermophilus

Garault, Peggy; Le Bars, Dominique; Besset, Colette; AUTHOR(S):

Monnet, Veronique

Unite de Biochimie et Structure des Proteines, CORPORATE SOURCE:

Institut National de la Recherche Agronomique, Jouy en

Josas, 78352, Fr.

Journal of Biological Chemistry (2002), 277(1), 32-39 SOURCE:

CODEN: JBCHA3; ISSN: 0021-9258

American Society for Biochemistry and Molecular PUBLISHER:

Biology

DOCUMENT TYPE: Journal LANGUAGE: English

The functions necessary for bacterial growth strongly depend on the \cdot features of the bacteria and the components of the growth media. Our objective was to identify the functions essential to the optimum growth of Streptococcus thermophilus in milk. Using random insertional mutagenesis on a S. thermophilus strain chosen for its ability to grow rapidly in milk, we obtained several mutants incapable of rapid growth in milk. We isolated and characterized one of these mutants in which an amiAl gene encoding an oligopeptide-binding protein (OBP) was interrupted. This gene was a part of an operon containing all the components of an ATP binding cassette transporter. Three highly homologous amiA genes encoding OBPs work with the same components of the ATP transport system. Their simultaneous inactivation led to a drastic diminution in the growth rate in milk and the absence of growth in chemical defined medium containing peptides

as the nitrogen source. We constructed single and multiple neg. mutants for AmiAs and cell wall proteinase (PrtS), the only proteinase capable of hydrolyzing casein oligopeptides outside the cell. Growth expts. in chemical defined medium containing peptides indicated that AmiA1, AmiA2, and AmiA3 exhibited overlapping substrate specificities, and that the whole system allows the transport of peptides containing from 3 to 23 residues.

REFERENCE COUNT:

45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

2002:31272 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

136:107509

 $\alpha ext{-Casein}$ peptide composition for retarding aging TITLE:

of the skin and treating periodontal disease

INVENTOR(S): Smith, John Arthur

PATENT ASSIGNEE(S):

Pepsyn Ltd., UK

PCT Int. Appl., 27 pp. SOURCE:

CODEN: PIXXD2 Patent

DOCUMENT TYPE:

English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO.			KIN)	DATE		1	APPL	ICAT:	ION	NO.		Di	ATE	
WO 2002 WO 2002		_		A2 A3		2002		1	WO 2	001-	GB26	01		2	0010	613
	AE, A CO, C HR, H LT, I	AG, CR, HU,	AL, CU, ID,	AM, CZ, IL,	AT, DE, IN,	DK, IS,	DM, JP,	DZ, KE,	EE, KG,	ES, KP,	FI, KR,	GB, KZ,	GD, LC,	GE, LK,	GH, LR,	GM, LS,

RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2001-2412836 20010613 CA 2412836 20020110 AAEP 2001-938424 EP 1317274 20030611 20010613 Α2 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR JP 2002-506754 20010613 JP 2004501976 Τ2 20040122 20040122 US 2003-312698 US 2004014653 Α1 20030618 GB 2000-16189 20000630 PRIORITY APPLN. INFO.: WO 2001-GB2601 W 20010613 AB Provided is use of a peptide, or a derivative of a peptide, in the manufacture of a medicament effective in alleviating or preventing periodontal disease, wherein the peptide comprises an amino acid sequence present in an α-S2 casein precursor, said sequence comprising 3 or more amino acids, and not comprising at its N-terminus the N-terminal amino acid of the full α -S2 casein precursor. The peptide may alternatively be any peptide having an α -S2 casein fragment activity. Further provided is use of a peptide, or a derivative of a peptide, in the manufacture of a medicament effective in alleviating or preventing an effect of aging in skin, wherein the peptide comprises an amino acid sequence present in an α -S2 casein precursor, said sequence comprising 3 or more amino acids, and not comprising at its N-terminus the N-terminal amino acid of the full $\alpha\text{-S2}$ casein precursor. The peptide may alternatively be any peptide having an α -S2 casein fragment activity. ANSWER 6 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN 2000:29682 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 132:219990 Casein related amyloid, characterization of a new and TITLE: unique amyloid protein isolated from bovine corpora amylacea Niewold, Theodoor A.; Murphy, Charles L.; AUTHOR(S): Hulskamp-Koch, Claartje A. M.; Tooten, Peter C. J.; Gruys, Erik Institute for Animal Science and Health (ID-DLO), CORPORATE SOURCE: Lelystad, NL-8200 AB, Neth. SOURCE: Amyloid (1999), 6(4), 244-249 CODEN: AIJIET; ISSN: 1350-6129 PUBLISHER: Parthenon Publishing Group DOCUMENT TYPE: Journal English LANGUAGE: Amyloid bodies can be found in mammary secretory tissue of various species. These corpora amylacea (CA) have a lamellated structure, contain amyloid fibrils and are predominantly located in the alveolar lumina. The nature of the amyloid was not known, but CA were suggested to originate either from milk casein or mammary alveolar epithelial keratin. In the present report, bovine CA were analyzed histochem. Furthermore, CA were isolated, analyzed and the amyloid was purified and characterized by amino acid sequencing. CA amyloid appeared to be potassium permanganate sensitive and tryptophan pos., and in this respect different from most other amyloid types except for AA and β -2 microglobulin amyloid. filtration of purified amyloid fibrils showed a HMW peak and a major 4 kDa peak. N-terminal amino acid sequencing showed the amyloid to consist of tryptic-like peptides with an unusually high content of amino acids with bulky side chains. The amyloid protein was identified as derived from α -S2-casein. The fragments are of varying length (32, 33 and 45 amino acids), but all start at position 81 of α -S2-casein. We have

identified a new and unique amyloid protein, and we propose to designate

it as according to the guidelines for amyloid nomenclature.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:71228 CAPLUS

DOCUMENT NUMBER: 122:284799

TITLE: Biochemical and genetic analysis of variant C of

caprine \as2-casein (Capra hircus)

AUTHOR(S): Bouniol, C.; Brignon, G.; Mahe, M F.; Printz, C. CORPORATE SOURCE: Unite de developpement concertee INSERM U-310-INRA

Station 806, Institut de Biológie Physico-chimique,

Paris, 75005, Fr.

SOURCE: Animal Genetics (1994), 25(3), 173-7

CODEN: ANGEE3; ISSN: 0268-9146

DOCUMENT TYPE: Journal LANGUAGE: English

AB Two alleles, A and B, were previously described at the goat αs2-casein locus. Isoelec. focusing allowed the us to subdivide the former one in two new alleles, called A and C. Although αs2-casein C cannot actually be distinguished from its A counterpart by starch or PAGE, it differs from the previous allele by a single substitution Lys (A)/Ile (C) at position 167, which was confirmed at the nucleotide level. The frequencies of the three αs2-casein alleles A, B and C were

estimated to be 0.85, 0.04 and 0.11 in the French dairy breeds "Alpine" and "Saanen".

L9 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:210960 CAPLUS

DOCUMENT NUMBER: 120:210960

TITLE: Characterization of goat allelic α s2-caseins A

and B: Further evidence of the phosphorylation code of

caseins

AUTHOR(S): Bouniol, Christine; Brignon, Ghislaine; Mahe,

Marie-Francoise; Printz, Christiane

CORPORATE SOURCE: Lab. Genet. Biochim., INRA, Jouy-en-Josas, F-78352,

Fr.

SOURCE: Protein Sequences & Data Analysis (1993), 5(5), 213-8

CODEN: PSDAE6; ISSN: 0931-9506

DOCUMENT TYPE: Journal LANGUAGE: English

AB As in other European goat breeds, in the French 'Alpine' and 'Saanen' goat races $\alpha s2$ -casein exists as two allelic forms, A and B, identified by gel electrophoresis. Anal. of elution profiles of enzymic digests of purified $\alpha s2$ -caseins A and B fractions and sequencing of some relevant peptides allowed the chemical characterization of both genetic variants, and these are in good agreement with the observed electrophoretic mobilities. $\alpha S2$ -casein B differs from its predominant A counterpart (allelic frequency .apprx.0.85) by an amino acid substitution Ser-Ala-Lys (B)/SerP62-Ala-Glu64(A), which provides indirect evidence of the phosphorylation code of caseins. The lack of a phosphate group on Ser62 in variant $\alpha s2$ -casein B can be readily explained by the Lys/Glu replacement which affects the Glu determinant in the tripeptide phosphorylation recognition site.

L9 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:228588 CAPLUS

DOCUMENT NUMBER: 118:228588

TITLE: Sequence of the goat αs2-casein-encoding cDNA

AUTHOR(S): Bouniol, Christine

CORPORATE SOURCE: Lab. Genet. Biochim., Inst. Natl. Rech. Agron.,

Jouy-en-Josas, 78350, Fr.

SOURCE: Gene (1993), 125(2), 235-6 CODEN: GENED6; ISSN: 0378-1119

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The complete nucleotide sequence of a caprine $\alpha s2$ -casein-encoding cDNA and the deduced 223-amino-acid sequence of pre- $\alpha s2$ -casein were determined

L9 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:167497 CAPLUS

DOCUMENT NUMBER: 116:167497

TITLE: Multiple mRNA species code for two non-allelic forms

of ovine α s2-casein

AUTHOR(S): Boisnard, Monique; Hue, Dominique; Bouniol, Christine;

Mercier, Jean Claude; Gaye, Pierre

CORPORATE SOURCE: Unite Endocrinol. Mol., Inst. Natl. Rech. Agron.,

Jouy-en-Josas, Fr.

SOURCE: European Journal of Biochemistry (1991), 201(3),

633-41

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal LANGUAGE: English

The two-allelic forms of α s2-casein, occurring in ovine milk, differ by an internal deletion of nine amino acid residues, including both cysteine residues at positions 34 and 42 in the mature chain. Sequencing of several α s2-casein cDNAs, isolated from the mammary cDNA library of a single lactating ewe, showed three new types which differed from that previously studied. In addition to the expected deletion of codons +34 to +42, affecting 30-40% of mRNA, another structural difference involving an internal stretch of 44 nucleotides in the 5'-untranslated region, was found. S1-nuclease protection assays confirmed the existence of several types of the relevant mRNA and sequencing of in-vitro-amplified genomic DNA demonstrated the presence of the 44-nucleotide stretch in the as2-casein transcriptional unit, thus ruling out the possibility of a cloning artifact. The different αs2-casein mRNA, four containing deletions and two containing nucleotide substitutions for a given ewe, can be readily explained by partial exon skipping and allelic differences, resp. This assumption is well supported by the following observations: 5' and 3' ends of both deleted DNA fragments are similar to those of exons; sequences neighboring the 44-nucleotide stretch of the genomic DNA perfectly match consensus sequences described for 3' and 5' ends of introns; the rather simple patterns observed on Southern blots of different enzymic digests of genomic DNA strongly suggest the occurrence of only 1 copy of the $\alpha s2$ -casein gene/haploid genome. During the course of evolution, the $\alpha s2$ -casein-encoding gene has undergone many mutations and some of them might have occurred in regions corresponding to consensus splicing regions of the pre-mRNA. Thus, complete skipping of some exons might be responsible for the shorter sizes of rat and mouse α s2-casein mRNA. If so, the overall organization of the as2-casein gene in the different species might be more similar than expected from structural comparisons of the cognate mRNA or caseins.

L9 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:46554 CAPLUS

DOCUMENT NUMBER: 104:46554

TITLE: Complete sequence of ovine α s2-casein messenger

RNA

AUTHOR(S): Boisnard, Monique; Petrissant, Guy

CORPORATE SOURCE: Lab. Physiol. Lactation, INRA, Jouy-en-Josas, 78350,

Fr.

SOURCE: Biochimie (1985), 67(9), 1043-51

CODEN: BICMBE; ISSN: 0300-9084

DOCUMENT TYPE: Journal LANGUAGE: English

The primary structure of mRNA coding for ovine $\alpha s2$ casein was determined by chemical sequencing of 3 cDNA clones and of the primer extension products of the longest one. The mRNA was 1024 nucleotides long, excluding the

poly(A) tail. The lengths of the 5'-noncoding, coding and 3'-noncoding regions were 53, 669 and 302 nucleotides, resp. A comparison of the nucleotide sequences of ovine $\alpha s2$ -casein and guinea-pig casein A mRNAs revealed an extensive homol. in the 5'- and 3'-noncoding regions. The deduced amino acid sequence of ovine $\alpha s2$ casein was compared with its bovine and guinea pig counterparts. An heterogeneity was evidenced in the mRNA population of the $\alpha s2$ casein.

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L11 12 L10

=> D L11 1-12 ibib abs

L11 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:5123 CAPLUS

DOCUMENT NUMBER:

140:71022

TITLE:

Casein α S2 peptides with angiotensin

I-converting enzyme (ACE)-inhibiting activity for the

preparation of medicaments and foodstuffs for the

treatment of hypertension

INVENTOR(S):

Tauzin, Jerome; Miclo, Laurent; Lefranc, Catherine;

Boudier, Jean-Francois; Gaillard, Jean-Luc

PATENT ASSIGNEE(S):

Ingredia, Fr.

SOURCE:

Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIN	D .	DATE			APPL	ICAT	ION 1	NO.		D	ATE	
EF	1374 R:	AT,	BE,	CH,	DE,	DK,	2004 ES, RO,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	
FF	2841				A1		2004										627
FF	2841	473			В1		2004	0917									
CA	2490	282			AA		2004	0108								0030	
WC	2004	0025	09		A2		2004	0108		WO 2	003-	FR19	45		2	0030	624
WC	2004	0025	09		A3		2004	0415			,						
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
							IN,										
							MD,										
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,
					•		VC,	•	•								
	RW:						ΜZ,										
		•	•	•	•	•	TM,	•	•	•			-				
			•	•	•	•	ΙE,	•	•	,	•		•	•			
							CM,										
	2003																
BF	2003	0122	14		A		2005	0412		BR 2	003-	1221	4		2	0030	624
	2005																
	2006				A1		2006	1019									
PRIORIT	Y APP	LN.	INFO	.:							002-						
										WO 2	003-	FR19	45	1	N 2	0030	624

ACE-inhibiting activity for the prevention and treatment of hypertension. The peptides may be included in pharmaceutical compns. and foodstuffs. REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:839514 CAPLUS

DOCUMENT NUMBER: 138:362404

TITLE: Angiotensin-I-converting enzyme inhibitory peptides

from tryptic hydrolysate of bovine α S2-casein

Tauzin, Jerome; Miclo, Laurent; Gaillard, Jean-Luc AUTHOR(S): Laboratoire des BioSciences de l'Aliment, Faculte des CORPORATE SOURCE:

Sciences et Techniques, UC 885 INRA, Universite Henri Poincare Nancy 1, Vandoeuvre-le`s-Nancy, 54506, Fr.

FEBS Letters (2002), 531(2), 369-374 SOURCE:

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

Angiotensin-I-converting enzyme (ACE) inhibitory activity of a tryptic

digest of bovine $\alpha S2$ -casein ($\alpha S2$ -CN) was extensively

investigated. Forty-three peptide peaks were isolated and tested. Seven casokinins (i.e. CN-derived ACE inhibitory peptides) were identified and

their IC50 values were determined Four peptides exhibited an IC50 value lower

than 20 μM . Peptides $\alpha S2$ -CN (f174-181) and $\alpha S2$ -CN

(f174-179) had IC50 values of 4 μ M. Surprisingly, deletion of the C-terminal dipeptide of two of these casokinins did not significantly alter their inhibitory activity.

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

50

ACCESSION NUMBER: 2002:52829 CAPLUS

DOCUMENT NUMBER: 137:196485

REFERENCE COUNT:

Molecular genetic characterization of the goat TITLE:

 α S2-casein E allele

Lagonigro, R.; Pietrola, E.; D'Andrea, M.; Veltri, C.; AUTHOR(S):

Pilla, F.

Dipartimento di Scienze Animali Vegetali e dell' CORPORATE SOURCE:

Ambiente, Universita del Molise, Campobasso, Italy

SOURCE: Animal Genetics (2001), 32(6), 391-393

CODEN: ANGEE3; ISSN: 0268-9146

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

As2 casein is one of the major protein of ruminants milk, and in goats, four alleles have already been described at the DNA level. DNA was extracted from whole blood of a goat specimen showing a homozygous E pattern to detect the mutation determining the phenotypic variant. All 18 exons of the $\alpha s2$ gene were amplified and sequenced, using primers selected according to the bovine intronic sequence. A mutation was identified at the eighty-third base of the exon 16, where cytosine was replaced by a quanine. In the encoded E protein variant, a proline replaced by an arginine in position 197 of the mature protein. The sequence of the amplified cDNA confirmed that the E allele presented a nucleotide

substitution in the eighty-third base of the exon 16.

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

2002:37476 CAPLUS ACCESSION NUMBER:

136:244141 DOCUMENT NUMBER:

TITLE: Three oligopeptide-binding proteins are involved in

the oligopeptide transport of Streptococcus

thermophilus

AUTHOR(S): Garault, Peggy; Le Bars, Dominique; Besset, Colette;

Monnet, Veronique

Unite de Biochimie et Structure des Proteines, CORPORATE SOURCE:

Institut National de la Recherche Agronomique, Jouy en

Josas, 78352, Fr.

SOURCE: Journal of Biological Chemistry (2002), 277(1), 32-39

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular

Biology

DOCUMENT TYPE: Journal LANGUAGE: English

The functions necessary for bacterial growth strongly depend on the features of the bacteria and the components of the growth media. Our objective was to identify the functions essential to the optimum growth of Streptococcus thermophilus in milk. Using random insertional mutagenesis on a S. thermophilus strain chosen for its ability to grow rapidly in milk, we obtained several mutants incapable of rapid growth in milk. isolated and characterized one of these mutants in which an amiAl gene encoding an oligopeptide-binding protein (OBP) was interrupted. This gene was a part of an operon containing all the components of an ATP binding cassette transporter. Three highly homologous amiA genes encoding OBPs work with the same components of the ATP transport system. Their simultaneous inactivation led to a drastic diminution in the growth rate in milk and the absence of growth in chemical defined medium containing peptides

as the nitrogen source. We constructed single and multiple neg. mutants for AmiAs and cell wall proteinase (PrtS), the only proteinase capable of hydrolyzing casein oligopeptides outside the cell. Growth expts. in chemical defined medium containing peptides indicated that AmiA1, AmiA2, and AmiA3 exhibited overlapping substrate specificities, and that the whole system allows the transport of peptides containing from 3 to 23 residues.

REFERENCE COUNT:

THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

45

ACCESSION NUMBER: 2002:31272 CAPLUS

DOCUMENT NUMBER:

136:107509

TITLE: α -Casein peptide composition for retarding aging

of the skin and treating periodontal disease

INVENTOR(S): Smith, John Arthur PATENT ASSIGNEE(S): Pepsyn Ltd., UK

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	
WO 2002002133 WO 2002002133	A2 20020110 A3 20021017	WO 2001-GB2601	20010613
W: AE, AG, AL, CO, CR, CU, HR, HU, ID, LT, LU, LV, RU, SD, SE,	AM, AT, AU, AZ, CZ, DE, DK, DM, IL, IN, IS, JP, MA, MD, MG, MK, SG, SI, SK, SL,	BA, BB, BG, BR, BY, BZ, DZ, EE, ES, FI, GB, GD, KE, KG, KP, KR, KZ, LC, MN, MW, MX, MZ, NO, NZ, TJ, TM, TR, TT, TZ, UA, CC, TA, MD, BH, TI, TM, TR, TT, TA, TA, TA, TA, TA, TA, TA, TA, TA	GE, GH, GM, LK, LR, LS, PL, PT, RO,
RW: GH, GM, KE, DE, DK, ES,	LS, MW, MZ, SD, FI, FR, GB, GR, CI, CM, GA, GN,	KG, KZ, MD, RU, TJ, TM SL, SZ, TZ, UG, ZW, AT, IE, IT, LU, MC, NL, PT, GW, ML, MR, NE, SN, TD, CA 2001-2412836	SE, TR, BF, TG
EP 1317274	A2 20030611	EP 2001-938424	20010613

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004501976 T2 20040122 JP 2002-506754 20010613
US 2004014653 A1 20040122 US 2003-312698 20030618
PRIORITY APPLN. INFO.: GB 2000-16189 A 20000630
WO 2001-GB2601 W 20010613

AB Provided is use of a peptide, or a derivative of a peptide, in the manufacture of a

medicament effective in alleviating or preventing periodontal disease, wherein the peptide comprises an amino acid sequence present in an $\alpha\text{-S2}$ casein precursor, said sequence comprising 3 or more amino acids, and not comprising at its N-terminus the N-terminal amino acid of the full $\alpha\text{-S2}$ casein precursor. The peptide may alternatively be any peptide having an $\alpha\text{-S2}$ casein fragment activity. Further provided is use of a peptide, or a derivative of a peptide, in the manufacture

of a

medicament effective in alleviating or preventing an effect of aging in skin, wherein the peptide comprises an amino acid sequence present in an $\alpha\text{-S2}$ casein precursor, said sequence comprising 3 or more amino acids, and not comprising at its N-terminus the N-terminal amino acid of the full $\alpha\text{-S2}$ casein precursor. The peptide may alternatively be any peptide having an $\alpha\text{-S2}$ casein fragment activity.

L11 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:29682 CAPLUS

DOCUMENT NUMBER:

132:219990

TITLE:

Casein related amyloid, characterization of a new and

unique amyloid protein isolated from bovine corpora

amylacea

AUTHOR(S):

SOURCE:

Niewold, Theodoor A.; Murphy, Charles L.;

Hulskamp-Koch, Claartje A. M.; Tooten, Peter C. J.;

Gruys, Erik

CORPORATE SOURCE:

Institute for Animal Science and Health (ID-DLO),

Lelystad, NL-8200 AB, Neth. Amyloid (1999), 6(4), 244-249 CODEN: AIJIET; ISSN: 1350-6129

PUBLISHER:

Parthenon Publishing Group

DOCUMENT TYPE:
LANGUAGE:

Journal English

Amyloid bodies can be found in mammary secretory tissue of various species. These corpora amylacea (CA) have a lamellated structure, contain amyloid fibrils and are predominantly located in the alveolar lumina. The nature of the amyloid was not known, but CA were suggested to originate either from milk casein or mammary alveolar epithelial keratin. In the present report, bovine CA were analyzed histochem. Furthermore, CA were isolated, analyzed and the amyloid was purified and characterized by amino acid sequencing. CA amyloid appeared to be potassium permanganate sensitive and tryptophan pos., and in this respect different from most other amyloid types except for AA and β -2 microglobulin amyloid. Gel filtration of purified amyloid fibrils showed a HMW peak and a major 4 kDa peak. N-terminal amino acid sequencing showed the amyloid to consist of tryptic-like peptides with an unusually high content of amino acids with bulky side chains. The amyloid protein was identified as derived from α -S2-casein. The fragments are of varying length (32, 33 and 45 amino acids), but all start at position 81 of $\alpha\text{-S2-casein}$. We have identified a new and unique amyloid protein, and we propose to designate it as according to the guidelines for amyloid nomenclature.

REFERENCE COUNT:

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:71228 CAPLUS

DOCUMENT NUMBER: 122:284799

TITLE: Biochemical and genetic analysis of variant C of

caprine \as2-casein (Capra hircus)

AUTHOR(S): Bouniol, C.; Brignon, G.; Mahe, M F.; Printz, C. CORPORATE SOURCE: Unite de developpement concertee INSERM U-310-INRA

Station 806, Institut de Biologie Physico-chimique,

Paris, 75005, Fr.

SOURCE: Animal Genetics (1994), 25(3), 173-7

CODEN: ANGEE3; ISSN: 0268-9146

DOCUMENT TYPE: Journal LANGUAGE: English

AB Two alleles, A and B, were previously described at the goat αs2-casein locus. Isoelec. focusing allowed the us to subdivide the former one in two new alleles, called A and C. Although αs2-casein C cannot actually be distinguished from its A counterpart by starch or PAGE, it differs from the previous allele by a single substitution Lys (A)/Ile (C) at position 167, which was confirmed at the nucleotide level.

The frequencies of the three $\alpha s2$ -casein alleles A, B and C were

estimated to be 0.85, 0.04 and 0.11 in the French dairy breeds "Alpine" and "Saanen".

L11 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:210960 CAPLUS

DOCUMENT NUMBER: 120:210960

TITLE: Characterization of goat allelic α s2-caseins A

and B: Further evidence of the phosphorylation code of

caseins

AUTHOR(S): Bouniol, Christine; Brignon, Ghislaine; Mahe,

Marie-Francoise; Printz, Christiane

CORPORATE SOURCE: Lab. Genet. Biochim., INRA, Jouy-en-Josas, F-78352,

Fr.

SOURCE: Protein Sequences & Data Analysis (1993), 5(5), 213-8

CODEN: PSDAE6; ISSN: 0931-9506

DOCUMENT TYPE: Journal LANGUAGE: English

As in other European goat breeds, in the French 'Alpine' and 'Saanen' goat races $\alpha s2$ -casein exists as two allelic forms, A and B, identified by gel electrophoresis. Anal. of elution profiles of enzymic digests of purified $\alpha s2$ -caseins A and B fractions and sequencing of some relevant peptides allowed the chemical characterization of both genetic variants, and these are in good agreement with the observed electrophoretic mobilities. $\alpha S2$ -casein B differs from its predominant A counterpart (allelic frequency .apprx.0.85) by an amino acid substitution Ser-Ala-Lys (B)/SerP62-Ala-Glu64(A), which provides indirect evidence of the phosphorylation code of caseins. The lack of a phosphate group on Ser62 in variant $\alpha s2$ -casein B can be readily explained by the Lys/Glu replacement which affects the Glu determinant in the tripeptide phosphorylation recognition site.

L11 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:228588 CAPLUS

DOCUMENT NUMBER: 118:228588

TITLE: Sequence of the goat α s2-casein-encoding cDNA

AUTHOR(S): Bouniol, Christine

CORPORATE SOURCE: Lab. Genet. Biochim., Inst. Natl. Rech. Agron.,

Jouy-en-Josas, 78350, Fr. Gene (1993), 125(2), 235-6

SOURCE: Gene (1993), 125(2), 235-6 CODEN: GENED6; ISSN: 0378-1119

DOCUMENT TYPE: Journal LANGUAGE: English

AB The complete nucleotide sequence of a caprine $\alpha s2$ -casein-encoding cDNA and the deduced 223-amino-acid sequence of pre- $\alpha s2$ -casein were determined

L11 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:167497 CAPLUS

DOCUMENT NUMBER:

116:167497

TITLE:

Multiple mRNA species code for two non-allelic forms

of ovine α s2-casein

AUTHOR(S):

Boisnard, Monique; Hue, Dominique; Bouniol, Christine;

Mercier, Jean Claude; Gaye, Pierre

CORPORATE SOURCE:

Unite Endocrinol. Mol., Inst. Natl. Rech. Agron.,

Jouy-en-Josas, Fr.

SOURCE:

European Journal of Biochemistry (1991), 201(3),

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE:

Journal English

LANGUAGE:

The two-allelic forms of $\alpha s2$ -casein, occurring in ovine milk, differ by an internal deletion of nine amino acid residues, including both cysteine residues at positions 34 and 42 in the mature chain. Sequencing of several α s2-casein cDNAs, isolated from the mammary cDNA library of a single lactating ewe, showed three new types which differed from that previously studied. In addition to the expected deletion of codons +34 to +42, affecting 30-40% of mRNA, another structural difference involving an internal stretch of 44 nucleotides in the 5'-untranslated region, was found. S1-nuclease protection assays confirmed the existence of several types of the relevant mRNA and sequencing of in-vitro-amplified genomic DNA demonstrated the presence of the 44-nucleotide stretch in the as2-casein transcriptional unit, thus ruling out the possibility of a cloning artifact. The different α s2-casein mRNA, four containing deletions and two containing nucleotide substitutions for a given ewe, can be readily explained by partial exon skipping and allelic differences, resp. This assumption is well supported by the following observations: 5' and 3' ends of both deleted DNA fragments are similar to those of exons; sequences neighboring the 44-nucleotide stretch of the genomic DNA perfectly match consensus sequences described for 3' and 5' ends of introns; the rather simple patterns observed on Southern blots of different enzymic digests of genomic DNA strongly suggest the occurrence of only 1 copy of the αs2-casein gene/haploid genome. During the course of evolution, the $\alpha s2$ -casein-encoding gene has undergone many mutations and some of them might have occurred in regions corresponding to consensus splicing regions of the pre-mRNA. Thus, complete skipping of some exons might be responsible for the shorter sizes of rat and mouse α s2-casein mRNA. If so, the overall organization of the as2-casein gene in the different species might be more similar than expected from structural comparisons of the cognate mRNA or caseins.

- L11 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1989:611264 CAPLUS

DOCUMENT NUMBER:

111:211264

TITLE:

Application of reversed-phase high-performance liquid chromoatography to the separation of peptides from

phosphorylated and dephosphorylated casein

hydrolyzates

AUTHOR(S):

Lemieux, Lise; Amiot, Jean

CORPORATE SOURCE:

Dep. Sci. Technol. Aliments, STELA, Sainte-Foy, QC,

G1K 7P4, Can.

SOURCE:

Journal of Chromatography (1989), 473(1), 189-206

CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Peptides from phosphorylated and dephosphorylated casein hydrolyzates were fractionated on a TSK G2000SW size-exclusion column. The fractionated peptides were separated by reversed-phase HPLC on a C18 column using aqueous trifluoroacetic acid as the mobile phase and acetonitrile as the mobile phase modifier in the linear gradient elution system. The separation of the dephosphorylated and phosphorylated hydrolyzates gave 213 and 187 peptides, resp., of which 116 and 99, resp., were reported. A study of their composition and retention times verified that the peptide separation

mechanism

includes ionic interactions. H bonding and peptide characteristics, in addition to overall peptide hydrophobicity.

L11 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:46554 CAPLUS

DOCUMENT NUMBER: 104:46554

TITLE: Complete sequence of ovine αs2-casein messenger

RNA

AUTHOR(S): Boisnard, Monique; Petrissant, Guy

CORPORATE SOURCE: Lab. Physiol. Lactation, INRA, Jouy-en-Josas, 78350,

Fr.

SOURCE: Biochimie (1985), 67(9), 1043-51

CODEN: BICMBE; ISSN: 0300-9084

DOCUMENT TYPE: Journal LANGUAGE: English

The primary structure of mRNA coding for ovine $\alpha s2$ casein was determined by chemical sequencing of 3 cDNA clones and of the primer extension products of the longest one. The mRNA was 1024 nucleotides long, excluding the poly(A) tail. The lengths of the 5'-noncoding, coding and 3'-noncoding regions were 53, 669 and 302 nucleotides, resp. A comparison of the nucleotide sequences of ovine $\alpha s2$ -casein and guinea-pig casein A mRNAs revealed an extensive homol. in the 5'- and 3'-noncoding regions. The deduced amino acid sequence of ovine $\alpha s2$ casein was compared with its bovine and guinea pig counterparts. An heterogeneity was evidenced in the mRNA population of the $\alpha s2$ casein.

=> file registry
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 35.18 219.71

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE -9.00 -21.75

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STRUCTURE FILE UPDATES: 13 NOV 2006 HIGHEST RN 913168-62-4 DICTIONARY FILE UPDATES: 13 NOV 2006 HIGHEST RN 913168-62-4

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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http://www.cas.org/ONLINE/UG/regprops.html

=> s YL/sqsp

L12 2210941 YL/SQSP

=> file caplus
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 30.21 249.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY

TOTAL SESSION

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FILE COVERS 1907 - 15 Nov 2006 VOL 145 ISS 21 FILE LAST UPDATED: 13 Nov 2006 (20061113/ED)

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=> s L12 and patent/dt TOO MANY TERMS FOR FILE CROSSOVER IN L12 There are limits on the size of an answer set being crossed over from one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information. => logoff y COST IN U.S. DOLLARS SINCE FILE TOTAL SESSION ENTRY FULL ESTIMATED COST 254.52 4.60 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL SESSION ENTRY CA SUBSCRIBER PRICE -21.75 0.00

STN INTERNATIONAL LOGOFF AT 09:18:55 ON 15 NOV 2006

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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L2	63088	casein	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/11/15 11:30
L3	1	L1 and hypertension	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/11/15 11:31
L4	0	L1 and (alpha near5 casein)	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/11/15 11:31
L5	1	L1 and alpha	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/11/15 11:31

Welcome to STN International! Enter x:x

LOGINID: SSPTAHPY1654

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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                 "Ask CAS" for self-help around the clock
        AUG 09
                 INSPEC enhanced with 1898-1968 archive
NEWS
NEWS
        AUG 28
                ADISCTI Reloaded and Enhanced
NEWS
        AUG 30
                CA(SM)/CAplus(SM) Austrian patent law changes
                 CA/CAplus enhanced with more pre-1907 records
NEWS
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                 CA/CAplus fields enhanced with simultaneous left and right
NEWS
        SEP 21
                 truncation
NEWS
     8
         SEP 25
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NEWS
     9
        SEP 25
                 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10
        SEP 25
                 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 11
         SEP 28
                 CEABA-VTB classification code fields reloaded with new
                 classification scheme
NEWS 12 OCT 19
                 LOGOFF HOLD duration extended to 120 minutes
NEWS 13
        OCT 19
                E-mail format enhanced
        OCT 23
NEWS 14
                 Option to turn off MARPAT highlighting enhancements available
NEWS 15
        OCT 23
                 CAS Registry Number crossover limit increased to 300,000 in
                 multiple databases
        OCT 23
                 The Derwent World Patents Index suite of databases on STN
NEWS 16
                 has been enhanced and reloaded
NEWS 17
         OCT 30
                 CHEMLIST enhanced with new search and display field
        NOV 03
NEWS 18
                 JAPIO enhanced with IPC 8 features and functionality
        NOV 10
NEWS 19
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NEWS 20
        NOV 10
                 STN Express with Discover! free maintenance release Version
                 8.01c now available
NEWS 21
        NOV 13
                 CA/CAplus pre-1967 chemical substance index entries enhanced
                 with preparation role
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NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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FILE 'HOME' ENTERED AT 15:58:08 ON 15 NOV 2006

=> file registry
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SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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http://www.cas.org/ONLINE/UG/regprops.html

=> s FALPQYLK/sqsp

L1 10 FALPQYLK/SQSP

=> d cn sql seq 1-10

L1 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

CN L-Leucine, L-leucyl-L-lysyl-L-lysyl-L-isoleucyl-L-seryl-L-glutaminyl-L-arginyl-L-tyrosyl-L-glutaminyl-L-lysyl-L-phenylalanyl-L-alanyl-L-leucyl-L-prolyl-L-glutaminyl-L-tyrosyl-L-leucyl-L-lysyl-L-threonyl-L-valyl-L-tyrosyl-L-glutaminyl-L-histidyl-L-glutaminyl-L-lysyl-L-alanyl-L-methionyl-L-lysyl-L-prolyl-L-tryptophyl-L-isoleucyl-L-glutaminyl-L-prolyl-L-lysyl-L-threonyl-L-lysyl-L-valyl-L-isoleucyl-L-prolyl-L-tyrosyl-L-valyl-L-arginyl-L-tyrosyl- (9CI) (CA INDEX NAME)

SQL 44

SEO 1 LKKISORYOK FALPOYLKTV YOHOKAMKPW IQPKTKVIPY VRYL

=======

HITS AT: 11-18

L1 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

CN L-Leucine, L-glutaminyl-L-lysyl-L-phenylalanyl-L-alanyl-L-leucyl-L-prolyl-L-glutaminyl-L-tyrosyl-L-leucyl-L-lysyl-L-threonyl-L-valyl-L-tyrosyl-L-glutaminyl-L-histidyl-L-glutaminyl-L-lysyl-L-alanyl-L-methionyl-L-lysyl-L-prolyl-L-tryptophyl-L-isoleucyl-L-glutaminyl-L-prolyl-L-lysyl-L-threonyl-L-lysyl-L-valyl-L-isoleucyl-L-prolyl-L-tyrosyl-L-valyl-L-arginyl-L-tyrosyl-(9CI) (CA INDEX NAME)

SOL 36

SEQ 1 QKFALPQYLK TVYQHQKAMK PWIQPKTKVI PYVRYL

=======

HITS AT: 3-10

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ANSWER 3 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN
L1
     Protein (Oryza sativa clone PAT MRT4530 28411C.1.pep fragment) (9CI)
·CN
     INDEX NAME)
OTHER NAMES:
     803: PN: US20040123343 SEQID: 125803 claimed protein
CN
SOL
         1 QYLQYLYQGP IVLSPWDQVK RNAVPITPTL NREQLSTSEE NSKKTVDMES
SEO
        51 TEVFTKKTKL TEEEKNRLNF LKKISQRYQK FALPQYLKTV YQHQKAMKPW
       101 IQPKTKVIPY VRYL
HITS AT: 81-88
     ANSWER 4 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN
L1
     L-Lysine, L-lysyl-L-lysyl-L-isoleucyl-L-seryl-L-glutaminyl-L-arginyl-L-
CN
     tyrosyl-L-glutaminyl-L-lysyl-L-phenylalanyl-L-alanyl-L-leucyl-L-prolyl-L-
    glutaminyl-L-tyrosyl-L-leucyl-L-lysyl-L-threonyl-L-valyl-L-tyrosyl-L-
     glutaminyl-L-histidyl-L-glutaminyl- (9CI) (CA INDEX NAME)
SQL
     24
SEO
         1 KKISORYOKF ALPOYLKTVY OHOK
                    = ======
HITS AT:
           10-17
     ANSWER 5 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN
L1
     GenBank AAA30479 (9CI)
                            (CA INDEX NAME)
OTHER NAMES:
     GenBank AAA30479 (Translated from: GenBank M16644)
CN
SQL
     222
        1 MKFFIFTCLL AVALAKNTME HVSSSEESII SQETYKQEKN MAINPSKENL
SEQ
        51 CSTFCKEVVR NANEEEYSIG SSSEESAEVA TEEVKITVDD KHYQKALNEI
       101 NQFYQKFPQY LQYLYQGPIV LNPWDQVKRN AVPITPTLNR EQLSTSEENS
       151 KKTVDMESTE VFTKKTKLTE EEKNRLNFLK KISQRYQKFA LPQYLKTVYQ
                                                    -- ----
       201 HQKAMKPWIQ PKTKVIPYVR YL
HITS AT: 189-196
     ANSWER 6 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN
L1
CN
     2-39-Casocidin I, 39a-L-alanine- (9CI) (CA INDEX NAME)
SQL
         1 TKLTEEEKNR LNFLKKISQR YQKFALPQYL KTVYQHQKA
SEQ
                                    ====== =
HITS AT:
           24 - 31
     ANSWER 7 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN
L1
     Casocidin I, 39a-L-alanine- (9CI) (CA INDEX NAME)
CN
SQL
     40
SEQ
         1 KTKLTEEEKN RLNFLKKISQ RYQKFALPQY LKTVYQHQKA
HITS AT:
           25-32
     ANSWER 8 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN
L1
CN
     Casocidin I (9CI) (CA INDEX NAME)
OTHER NAMES:
     L-Lysine, L-lysyl-L-threonyl-L-lysyl-L-leucyl-L-threonyl-L-\alpha-
     glutamyl-L-\alpha-glutamyl-L-\alpha-glutamyl-L-lysyl-L-asparaginyl-L-
     arginyl-L-leucyl-L-asparaginyl-L-phenylalanyl-L-leucyl-L-lysyl-L-lysyl-L-
    isoleucyl-L-seryl-L-glutaminyl-L-arginyl-L-tyrosyl-L-glutaminyl-L-lysyl-L-
     phenylalanyl-L-alanyl-L-leucyl-L-prolyl-L-glutaminyl-L-tyrosyl-L-leucyl-L-
     lysyl-L-threonyl-L-valyl-L-tyrosyl-L-glutaminyl-L-histidyl-L-glutaminyl-
SQL
     39
```

SEQ 1 KTKLTEEEKN RLNFLKKISQ RYQKFALPQY LKTVYQHQK

====== ==

HITS AT: 25-32

L1 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

N lphaS2-Casein (cattle protein moiety reduced) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN α S2-Casein (ox protein moiety reduced)

SOL 207

SEQ 1 KNTMEHVSSS EESIISQETY KQEKNMAINP SKENLCSTFC KEVVRNANEE

- 51 EYSIGSSSEE SAEVATEEVK ITVDDKHYQK ALNEINEFYQ KFPQYLQYLY
- 101 QGPIVLNPWD QVKRNAVPIT PTLNREQLST SEENSKKTVD MESTEVFTKK
- 151 TKLTEEEKNR LNFLKKISQR YQKFALPQYL KTVYQHQKAM KPWIQPKTKV

201 IPYVRYL HITS AT: 174-181

L1 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

CN L-Lysine, L-phenylalanyl-L-alanyl-L-leucyl-L-prolyl-L-glutaminyl-L-tyrosyl-L-leucyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Lysine, N2-[N-[N-[N2-[1-[N-(N-L-phenylalanyl-L-alanyl)-L-leucyl]-L-prolyl]-L-glutaminyl]-L-tyrosyl]-L-leucyl]-

CN Lysine, N2-[N-[N-[N2-[1-[N-(N-(3-phenyl-L-alanyl)-L-alanyl]-L-leucyl]-L-prolyl]-L-glutaminyl]-L-tyrosyl]-L-leucyl]-, L- (8CI)

OTHER NAMES:

CN 3: PN: WO2005052563 SEQID: 15 unclaimed sequence

CN 5: PN: EP1374885 SEQID: 5 claimed protein

SQL 8

SEQ 1 FALPQYLK

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HITS AT: 1-8

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 94.69 94.90

FULL ESTIMATED COST

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FILE COVERS 1907 - 15 Nov 2006 VOL 145 ISS 21 FILE LAST UPDATED: 14 Nov 2006 (20061114/ED)

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=> s L1

L2 13 L1

=> d L2 1-13 ibib abs

L2 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:493749 CAPLUS

DOCUMENT NUMBER: 143:40600

TITLE: Peptide derivatization for enhancing protein

identification by mass spectrometry
INVENTOR(S): Reilly, James P.; Beardsley, Richard L.
PATENT ASSIGNEE(S): Indiana University Research and Technology

Corporation, USA

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.				KIN	D	DATE A			APPLICATION NO.					DATE			
WO	WO 2005052563			A1	20050609			,	WO 2	004-	 US38	20041119						
	W: A C G L N T RW: B		AG, CO, GH, LR, NZ, TM, GH,	AL, CR, GM, LS, OM, TN, GM,	AM, CU, HR, LT, PG, TR, KE,	AT, CZ, HU, LU, PH, TT, LS,	AU, DE, ID, LV, PL, TZ,	AZ, DK, IL, MA, PT, UA, MZ,	BA, DM, IN, MD, RO, UG, NA,	BB, DZ, IS, MG, RU, US, SD,	BG, EC, JP, MK, SC, UZ, SL,	BR, EE, KE, MN, SD, VC, SZ,	BW, EG, KG, MW, SE, VN, TZ,	BY, ES, KP, MX, SG, YU, UG,	BZ, FI, KR, MZ, SK, ZA, ZM,	CA, GB, KZ, NA, SL, ZM, ZW,	CH, GD, LC, NI, SY, ZW AM,	
		SE,		SK,	TR,		GR, BJ,	•	•	•				•	•		•	

PRIORITY APPLN. INFO.:

US 2003-523643P P 20031120

AB One aspect of the present invention is directed to a dual labeling strategy that enhances the mass spectrometry anal. of peptides. In one embodiment a de novo sequencing method is provided that utilizes both guanidination of lysine residues in conjunction with amidination of the N-termini of peptides to be analyzed by mass spectrometry. This approach facilitates identification of N- and C-terminal fragment ions.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:28061 CAPLUS

DOCUMENT NUMBER: 143:265786

TITLE: Isolation and characterisation of antibacterial

peptides derived from the f(164-207) region of bovine

αS2-casein

AUTHOR(S): McCann, K. B.; Shiell, B. J.; Michalski, W. P.; Lee,

A.; Wan, J.; Roginski, H.; Coventry, M. J.

CORPORATE SOURCE: Institute of Land and Food Resources, Gilbert Chandler

College, The University of Melbourne, Werribee, VIC.

3030, Australia

SOURCE: International Dairy Journal (2005), 15(2), 133-143

CODEN: IDAJE6; ISSN: 0958-6946

PUBLISHER: Elsevier B.V DOCUMENT TYPE: Journal

LANGUAGE: Journal English

AB A chymosin digest of sodium caseinate, which showed antibacterial activity against Listeria innocua, was fractionated using reverse phase high

performance liquid chromatog. and the purified antibacterial peptides were characterized by mass spectrometry, N-terminal amino acid sequencing and comparison to peptide masses of theor. enzymic digests of milk proteins. Five antibacterial peptides, Cr1, Cr3, Cr4, Cr5 and Cr7 corresponding to amino acid residues 181-207, 180-207, 175-207, 164-207 and 172-207 of bovine α S2-casein, resp., were isolated. The minimal inhibitory concentration of peptides Cr1, Cr4 and Cr5 was determined against a range of Gram-pos.

and Gram-neg. bacteria and showed similar activities to those of the bacteriocin peptide, nisin and the antibacterial peptide, lactoferricin B against certain Gram-pos. bacteria. A partially purified chymosin digest of sodium caseinate (CrMIX) was prepared and observed to be heat stable for up to 15 min on exposure to 121°. Although CrMIX showed bactericidal activity against Salmonella typhimurium in 0.1% (w/v) peptone medium, no antibacterial activity was observed when tested in skim milk at the same concentration

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:546918 CAPLUS

DOCUMENT NUMBER: 141:83633

TITLE: Rice nucleic acid molecules and encoded proteins and

their uses for plant improvement

INVENTOR(S): La Rosa, Thomas J.; Kovalic, David K.; Zhou, Yihua;

Cao, Yongwei; Wu, Wei; Boukharov, Andrey A.; Barbazuk,

Brad W.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S.

Ser. No. 837,604.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 27

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 2004123343	A1	20040624	US 2003-437963		20030514	
US 2004123343	A1	20040624	US 2003-437963		20030514	
PRIORITY APPLN. INFO.:			US 2000-197872P	P	20000419	
	•		US 2001-837604	A2	20010418	
•			US 2003-437963	A	20030514	

AB The present invention provides 102,483 cDNA sequences and their encoded protein sequences from rice (Oryza sativa). Bioinformatic anal. identified putative functions and uses for the nucleic acids/polypeptides. The disclosed polynucleotides and polypeptides find use in production of transgenic plants to produce plants having improved properties. [This abstract record is one of forty-one records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L2 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:5123 CAPLUS

DOCUMENT NUMBER: 140:71022

TITLE: Casein α S2 peptides with angiotensin

I-converting enzyme (ACE)-inhibiting activity for the preparation of medicaments and foodstuffs for the

treatment of hypertension

INVENTOR(S): Tauzin, Jerome; Miclo, Laurent; Lefranc, Catherine;

Boudier, Jean-Francois; Gaillard, Jean-Luc

PATENT ASSIGNEE(S): Ingredia, Fr.

SOURCE: Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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APPLICATION NO.
                                                                DATE
    PATENT NO.
                        KIND
                              DATE
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                              20040102 EP 2003-370025
                                                                 20030624
    EP 1374885
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                              20040102
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    FR 2841473
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                        AΑ
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    WO 2004002509
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
            PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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            FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    AU 2003255691
                        A1
                              20040119
                                        AU 2003-255691
                               20050412
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    BR 2003012214
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    JP 2005530851
                        Т2
                               20051013
                                          JP 2004-516859
                                                                20030624
    US 2006234942
                        A1
                              20061019
                                          US 2005-519164
                                                                 20050830
PRIORITY APPLN. INFO.:
                                          FR 2002-8036
                                                              A 20020627
                                          WO 2003-FR1945
                                                             W 20030624
```

AB The invention discloses peptides derived from casein $\alpha S2$ with ACE-inhibiting activity for the prevention and treatment of hypertension. The peptides may be included in pharmaceutical compns. and foodstuffs. REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L2 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
```

ACCESSION NUMBER: 2002:839514 CAPLUS

DOCUMENT NUMBER: 138:362404

TITLE: Angiotensin-I-converting enzyme inhibitory peptides

from tryptic hydrolysate of bovine αS2-casein

AUTHOR(S): Tauzin, Jerome; Miclo, Laurent; Gaillard, Jean-Luc

CORPORATE SOURCE: Laboratoire des BioSciences de l'Aliment, Faculte des Sciences et Techniques, UC 885 INRA, Universite Henri

Poincare Nancy 1, Vandoeuvre-le`s-Nancy, 54506, Fr.

SOURCE: FEBS Letters (2002), 531(2), 369-374

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

L2

AB Angiotensin-I-converting enzyme (ACE) inhibitory activity of a tryptic digest of bovine $\alpha S2$ -casein ($\alpha S2$ -CN) was extensively investigated. Forty-three peptide peaks were isolated and tested. Seven casokinins (i.e. CN-derived ACE inhibitory peptides) were identified and their IC50 values were determined Four peptides exhibited an IC50 value lower than 20 μM . Peptides $\alpha S2$ -CN (f174-181) and $\alpha S2$ -CN (f174-179) had IC50 values of 4 μM . Surprisingly, deletion of the C-terminal dipeptide of two of these casokinins did not significantly

alter their inhibitory activity.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2002:771931 CAPLUS

DOCUMENT NUMBER: 138:121522

TITLE: Identification of Sequential IgE-Binding Epitopes on

Bovine as2-Casein in Cow's Milk Allergic

Patients

AUTHOR(S): Busse, Paula J.; Jaervinen, Kirsi-Marjut; Vila,

Leticia; Beyer, Kirsten; Sampson, Hugh A.

CORPORATE SOURCE: Jaffe Institute for Food Allergy, Division of Allergy

and Immunology, Department of Pediatrics, The Mount Sinai School of Medicine, New York, NY, 10029-6574,

USA

SOURCE: International Archives of Allergy and Immunology

(2002), 129(1), 93-96

CODEN: IAAIEG; ISSN: 1018-2438

PUBLISHER: S. Karger AG DOCUMENT TYPE: Journal LANGUAGE: English

Background: Caseins are the major allergens responsible for cow's milk allergy (CMA). The authors have previously identified the IgE-binding epitopes of the major cow's milk (CM) proteins except for $\alpha s2\text{-}\mathrm{casein}$. Methods: Overlapping decapeptides representing the entire length of $\alpha s2\text{-}\mathrm{casein}$ were synthesized on a cellulose-derivatized membrane. Sera from 13 CM-allergic children, 4-15 yr of age, with a median level of CM-specific IgE >100 kU/l (range 33.7 to > 100 kU/l) were used to identify IgE-binding epitopes. Results: Four major and six minor sequential IgE-binding regions were identified on $\alpha s2\text{-}\mathrm{casein}$. The first major region is located in the middle of the protein at amino acids (AA) 83-100, and the other three major regions are located in the carboxy terminal portion of the protein at AA 143-158,

157-172 and 165-188. The minor IgE-binding regions were identified at AA 31-44, 43-56, 93-106, 105-114, 117-128, and 191-200. Conclusion: the authors identified 10 sequential IgE-binding regions on α s2-casein and performed the first crucial step in the development of immunotherapeutic interventions for CMA.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:758248 CAPLUS

DOCUMENT NUMBER: 138:90063

TITLE: The development of electro-membrane filtration for the

isolation of bioactive peptides: the effect of membrane selection and operating parameters on the

transport rate

AUTHOR(S): Bargeman, G.; Koops, G.-H.; Houwing, J.; Breebaart,

I.; van der Horst, H. C.; Wessling, M. NIZO Food Research, Ede, 6710 BA, Neth. Desalination (2002), 149(1-3), 369-374

CODEN: DSLNAH; ISSN: 0011-9164

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

CORPORATE SOURCE:

SOURCE:

The ability to produce functional food ingredients from natural sources becomes increasingly attractive to the food industry. Antimicrobial (bioactive) ingredients, like peptides and proteins, can be isolated from hydrolyzates with membrane filtration and/or chromatog. Electro-membrane filtration (EMF) is an alternative for the isolation of these usually strongly charged components. It is believed to be more selective than membrane filtration and less costly than chromatog. The isolation of bioactive peptides from a hydrolyzate of αs2-casein, a protein originating from milk, was studied as a model separation for the development of EMF. This separation can be used as an example application for the isolation of other charged components from complex feedstocks in several industries. After 4 h EMF the product consisted for 100% of proven or anticipated

charged bioactive components. Diffusion and convection were negligible in relation to electrophoretic transport, since only charged components were recovered in the permeate product. The most important peptide (26% on total protein, starting from 7.5% in the feed) was α s2-casein (183-207), a very potent peptide against Gram pos. and Gram neg. microorganisms. The transport rate of $\alpha s2$ -casein (183-207) was reduced strongly when a polysulfone membrane with a mol. weight cut-off below 20 kDa was used. The amount of $\alpha s2$ -casein (183-207) transported increased practically linearly with the concentration and the applied p.d. use of desalinated feeds to further increase the elec. field strength in the feed compartment resulted in higher transport rates, but this increase was lower than expected probably due to the lower electrophoretic mobility. An average transport rate of 2.5 and 4 g/m2.h at maximum was

achieved

during 4 h EMF using GR60PP (25 kDa) and GR41PP (100 kDa) membranes, resp. REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:37476 CAPLUS

DOCUMENT NUMBER: 136:244141

TITLE: Three oligopeptide-binding proteins are involved in

the oligopeptide transport of Streptococcus

thermophilus

AUTHOR(S): Garault, Peggy; Le Bars, Dominique; Besset, Colette;

Monnet, Veronique

CORPORATE SOURCE: Unite de Biochimie et Structure des Proteines,

Institut National de la Recherche Agronomique, Jouy en

Josas, 78352, Fr.

SOURCE: Journal of Biological Chemistry (2002), 277(1), 32-39

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular

Biology

DOCUMENT TYPE: Journal LANGUAGE: English

The functions necessary for bacterial growth strongly depend on the features of the bacteria and the components of the growth media. Our objective was to identify the functions essential to the optimum growth of Streptococcus thermophilus in milk. Using random insertional mutagenesis on a S. thermophilus strain chosen for its ability to grow rapidly in milk, we obtained several mutants incapable of rapid growth in milk. isolated and characterized one of these mutants in which an amiAl gene encoding an oligopeptide-binding protein (OBP) was interrupted. This gene was a part of an operon containing all the components of an ATP binding cassette transporter. Three highly homologous amiA genes encoding OBPs work with the same components of the ATP transport system. Their simultaneous inactivation led to a drastic diminution in the growth rate in milk and the absence of growth in chemical defined medium containing peptides

as the nitrogen source. We constructed single and multiple neg. mutants for AmiAs and cell wall proteinase (PrtS), the only proteinase capable of hydrolyzing casein oligopeptides outside the cell. Growth expts. in chemical defined medium containing peptides indicated that AmiAl, AmiA2, and AmiA3 exhibited overlapping substrate specificities, and that the whole system allows the transport of peptides containing from 3 to 23 residues.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 9 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

1996:452327 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 125:123676

Purification of antibacterial peptides from bovine TITLE:

milk

Zucht, Hans-Dieter; Forssmann, Wolf-Georg; Raida, INVENTOR(S):

Manfred; Adermann, Knut

PATENT ASSIGNEE(S): Germany

SOURCE: Ger. Offen., 17 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent German

LANGUAGE:

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.					KIND DATE					APE	LICAT	DATE							
	DE 4444753							DE 1994-4444753						19941215						
	DE 4444753								10061006						1000000					
	WO	WO 9735877							WO 1996-EP1296 CN, CZ, EE, GE, HU, IS,											
		W:	AL,	AM,	·AU,	BB,	BG,	BR,	CA,	CN,	CZ	., EE,	GE,	HU,	IS,	JP,	KG,	KP,		
			KR,	LK,	LR,	LT,	LV,	MD,	MG,	MK,	MN	I, MX,	NO,	NΖ,	PL,	RO,	SG,	SI,		
			SK,	TR,	TT,	UA,	US,	UZ,	VN,	AM,	ΑZ	, BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM		
		RW:	KE,	LS,	MW,	SD,	SZ,	UG,	AT,	BE,	CH	I, DE,	DK,	ES,	FI,	FR,	GB,	GR,		
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	US	6579	849			В2		2003	0617											
PRIORITY APPLN. INFO.:										DE	1994-	4444	753		1	9941	215			
											1996-					9960	325			
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AB Fragments of $\alpha s2$ -casein, designated as casobiotics, are present in large amts. in bovine milk and show antibacterial activity against Escherichia coli. Thus, milk was acidified, heated, treated with CaCl2, and centrifuged, and the whey was subjected to cation-exchange chromatog. and 3 cycles of HPLC to isolate $\alpha s2$ -casein(165-203). The structure and biol. activity of this peptide were confirmed by synthesis. A related peptide, $\alpha s2$ -casein(166-203), was also prepared and showed similar biol. activity.

L2 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:847173 CAPLUS

DOCUMENT NUMBER:

123:333116

TITLE:

Casocidin-I: a casein-as2 derived peptide

exhibits antibacterial activity

AUTHOR(S):

Zucht, Hans-Dieter; Raida, Manfred; Adermann, Knut;

Maegert, Hans-Juergen; Forssmann, Wolf-Georg

CORPORATE SOURCE:

Niedersaechsisches Institut fuer Peptid-Forschung

(IPF), Feodor-Lynen-Strasse 31, Hannover, D-30625,

Germany

SOURCE:

FEBS Letters (1995), 372(2,3), 185-8

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

AB Here we report the isolation and characterization of an antibacterial peptide from bovine milk inhibiting the growth of Escherichia coli and Staphylococcus carnosus. The primary structure of the peptide was revealed as a 39-amino-acid-containing fragment of bovine $\alpha s2$ -casein (position 165-203) by means of Edman amino acid sequencing and mass spectrometry. Since human milk does not contain any casein- $\alpha s2$, these findings could explain the different influence of human and bovine milk on the gastrointestinal flora of the suckling.

L2 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:611264 CAPLUS

DOCUMENT NUMBER: 111:211264

TITLE: Application of reversed-phase high-performance liquid

chromoatography to the separation of peptides from

phosphorylated and dephosphorylated casein

hydrolyzates

AUTHOR(S): Lemieux, Lise; Amiot, Jean

CORPORATE SOURCE: Dep. Sci. Technol. Aliments, STELA, Sainte-Foy, QC,

G1K 7P4, Can.

SOURCE: Journal of Chromatography (1989), 473(1), 189-206

CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE: Journal LANGUAGE: English

AB Peptides from phosphorylated and dephosphorylated casein hydrolyzates were fractionated on a TSK G2000SW size-exclusion column. The fractionated peptides were separated by reversed-phase HPLC on a C18 column using aqueous trifluoroacetic acid as the mobile phase and acetonitrile as the mobile phase modifier in the linear gradient elution system. The separation of the dephosphorylated and phosphorylated hydrolyzates gave 213 and 187 peptides, resp., of which 116 and 99, resp., were reported. A study of their composition and retention times verified that the peptide separation

includes ionic interactions, H bonding and peptide characteristics, in addition to overall peptide hydrophobicity.

L2 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:417534 CAPLUS

DOCUMENT NUMBER:

mechanism

TITLE: Complete amino acid sequence of bovine

αS2-casein

87:17534

AUTHOR(S): Brignon, Ghislaine; Ribadeau Dumas, Bruno; Mercier,

Jean Claude; Pelissier, Jean Pierre; Das, B. C. Lab. Rech. Proteines, Inst. Natl. Rech. Agron.,

CORPORATE SOURCE: Lab. Rech. Proteines, Inst. Natl. Rech. Agron.,

Jouy-en-Josas, Fr.

SOURCE: FEBS Letters (1977), 76(2), 274-9

CODEN: FEBLAL; ISSN: 0014-5793

DOCUMENT TYPE: Journal LANGUAGE: English

AB The complete primary amino acid sequence of bovine $\alpha S2$ -casein was determined by standard methods. In addition, the possible sites of phosphorylation on

this protein were localized. This protein contains 207 amino acid residues, including 2 cysteines, and 10-13 phosphate groups and has a calculated mol. weight of 25,150-15,390 daltons.

L2 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1970:519353 CAPLUS

DOCUMENT NUMBER: 73:119353

TITLE: Isolation of bitter peptides from tryptic hydrolyzate

of casein and their chemical structure

AUTHOR(S): Matoba, Teruyoshi; Hayashi, Rikimaru; Hata, Tadao CORPORATE SOURCE: Res. Inst. Food Sci., Kyoto Univ., Kyoto, Japan

SOURCE: Agricultural and Biological Chemistry (1970), 34(8),

1235-43.

CODEN: ABCHA6; ISSN: 0002-1369

DOCUMENT TYPE: Journal LANGUAGE: English

AB Three bitter peptides were isolated from the tryptic hydrolyzate of casein by extraction with BuOH, precipitation at pH 5.4, gel filtration with Sephadex G-25,

chromatog. on Dowex 50, and paper chromatog. The primary structures of the peptides were: Gly-Pro-Phe-Pro-Val-Ileu, Phe-Phe-Val-Ala-Pro-Phe-Pro-Glu-Val-Phe-Gly-Lys, and Phe-Ala-Leu-Pro-Gln-Tyr-Leu-Lys.